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Alliance for Clinical Research Excellence and Safety

*Enhancing Safety, Quality and Efficiency in
Drug Development and Health Science*

APPLICATION OF SAFETY ENGINEERING (‘STAMP’) TO THE SYSTEM FOR “FIRST IN MAN” CLINICAL RESEARCH: A Proposal

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<http://www.acresglobal.net/>



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OUR OBJECTIVE

Transform the world of clinical research so clinical trials are responsibly conducted according to the highest standards of safety, quality and efficiency.



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Novartis.com



gmpmax.com



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A Short List of Pharma Achievements

- Increased Life Expectancy
- Decreased Disability
- HIV/AIDS: Dramatically improved survival
- Heart Disease and Stroke: Dramatic decline in deaths
- Cancer: Prolonged Life Expectancy
- Diabetes: far fewer hospitalizations
- Rare Diseases: 30 years, 400 medicines approved



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Stages in the Discovery and Development of a New Medicine

Regulations

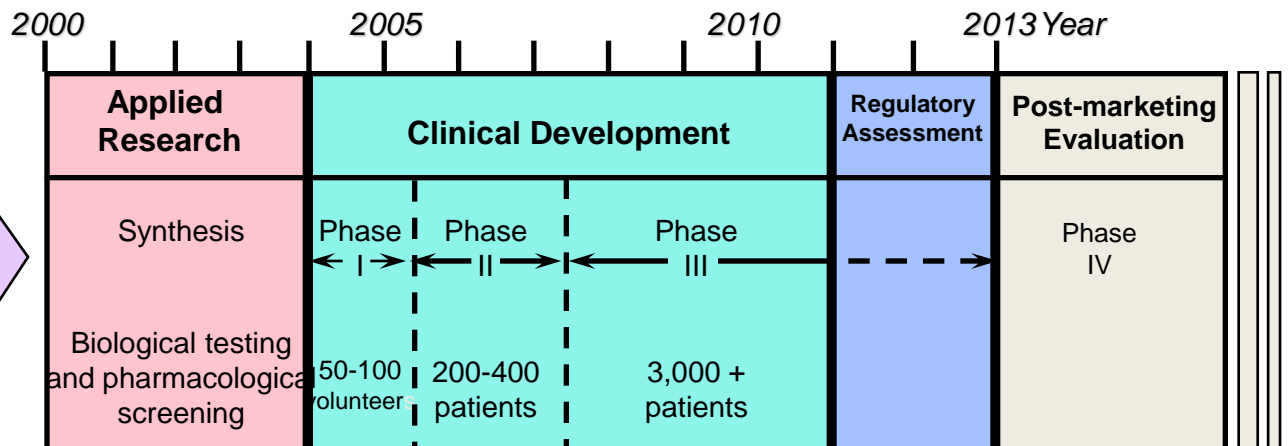
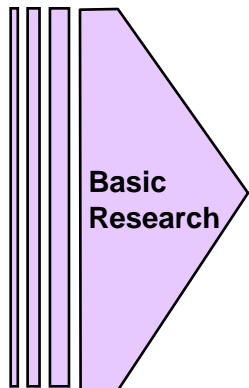
Final patent application

Clinical trial application

Product license application

Product license approval/
product launch

Phases of Drug Development



Attrition rates

Up to 10,000

10-15

4-8

2-3

1

1

No. of Compound⁵

5



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Clinical Development Accident Terminology

Adverse Event (AE) = Any untoward medical occurrence in a patient or clinical trial subject administered a medicinal product and which does not necessarily have a causal relationship with this treatment.

Adverse Reaction (AR) = Any untoward and unintended response to an investigational medicinal product related to any dose administered. This implies reasonable causal relationship

Serious Adverse Event (SAE) = Any adverse event or adverse reaction that results in death, is life-threatening, requires hospitalization or prolongation of existing hospitalization, results in persistent or significant disability or incapacity, or is a congenital anomaly or birth defect.

SUSAR = Suspected Unexpected Serious Adverse Reaction



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VOLUME _____

NOTICE OF CLAIMED
INVESTIGATIONAL
EXEMPTION FOR A
NEW DRUG

IND. No. _____
SPONSOR

IND NAME OF DRUG

FORM FDA 2675

THIS SUBMISSION VOL. _____ OF _____ PAGES

What are some of the safety issues?

- Too often regulation for clinical research are reactions to safety issues rather than being prospectively designed based on evidence
- Regulations stress compliance to systems and processes rather than prioritizing the avoidance of potential harm to human subjects.
- Regulations are added without a holistic view of how they impact the system
- No known attempts to apply organisational science techniques such as human factors; little attention to human reliability analysis to identify and mitigate risk.
- Concerns about less than rigorous methodology and compliance in less regulated territories
- Concerns about volunteer remuneration, lack of informed consent, informed consent under duress, coercion
- In effect, we do not know what the system for moving therapeutics from bench into man looks like and what the systemic factors are for managing risk
- No standard conduct for administering products for the first time to Man ini8

So what are we proposing.....?

Use STAMP Methodology to examine and evaluate the strength and weaknesses of the current system for the purpose of creating the ideal first- into-man system in clinical research

The Three Steps.....

- Develop specific goals for first-in-man
- Model the current systems in place with collaborating organizations
- Convene Subject Matter Experts from stakeholders to determine potential approaches for improvements to the processes



**The ideal system for
safe clinical research:
what are we looking for today?**

WE NEED YOUR HELP...we cannot do this alone

**Expertise outside of Biomedical R&D is crucial to success to
creating a safety culture in our business sector**

- Feedback about feasibility of our project using STAMP
- Potential for several collaborations with clinical research professionals through ACRES
- Increased likelihood of funding if a multidisciplinary team